CHATTANOOGA - Daily Times

$2 Million Going To Help Control TNT Plant Air

T 6-10-66

By SPRINGER GIBSON

The Army is spending approximately $2 million to control air pollution at the Volunteer Army Ammunition Plant, formerly the Volunteer Ordnance Works.

With the reactivation of the plant to produce TNT under contract of the Army with Atlas Chemical Industries Inc. as the operating company, the need to provide more effective control of air and water pollution is recognized as imperative.

Emissions in the manufacture of chemicals are always a difficulty. When you add to it atmospheric conditions which frequently create temperature inversions in the vicinity of the plant, holding the emissions close to the earth for relatively long periods, the problems of odors and appearance are multiplied.

To discuss the approaches to attacking the control of both air and water pollution, a conference on the subject was held at the VAAP last Dec. 2, it was explained by Lt. Col. Herbert H. Riedemann, commanding officer.

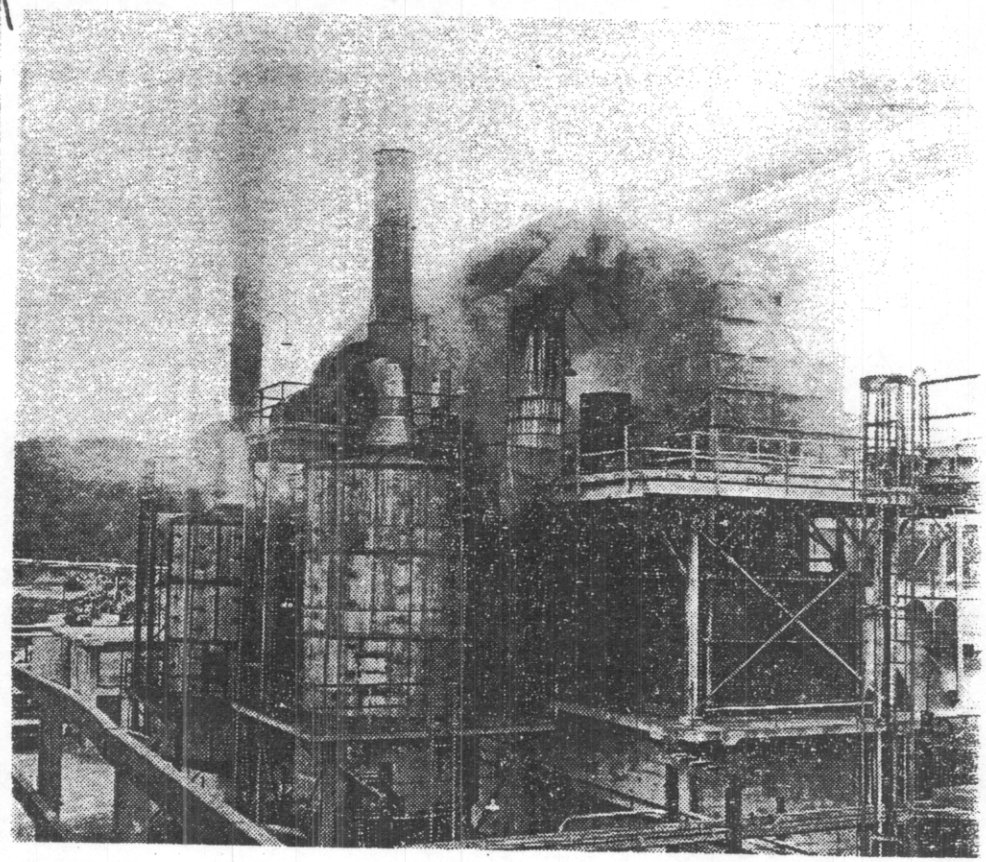
Thirty-eight persons, most of them having technical knowledge in the fields of air and water control, attended the meeting.

As the result of that meeting, and of research which had begun when the plant was reactivated during the Korean conflict, the control measures on air alone are being put into effect which will cost approximately $1 million for the control of the sulphuric acid emissions, $750,000 for the control of the exides of nitrogen emissions and $200,000 for a monitoring system which will record automatically how much pollutant is escaping and where it is falling.

The control measures were discussed by George Woods, technical superintendent for Atlas Chemical Industries, Inc., Capt. Frederick B. Higgins Jr., U.S. Army Environmental Health Agency, Edgewood, Md., and James R. Brown, industrial engineer for VAAP.

In the work on the capturing of pollutants from the sulphuric acid concentrators, Mahon fog filters are being installed at a cost of about $1 million. For those in operation, Woods said they are achieving approximately 99 per cent efficiency.

$2 MILLION GOING FOR TNT PLANT AIR CONTROL



—Times Staff Photos by Philip Schm

EMISSIONS FROM ACID CONCENTRATORS WITHOUT FOG FILTERS WORKING

The fog filters, which carry out a high pressure scrubbing operation with vaporized water, are in addition to electrostatic precipitators which were used as the control device during World War II.

The precipitators alone were not doing an effective job, but the addition of the fog filters has produced the results which the technicians desired.

Hope for Control

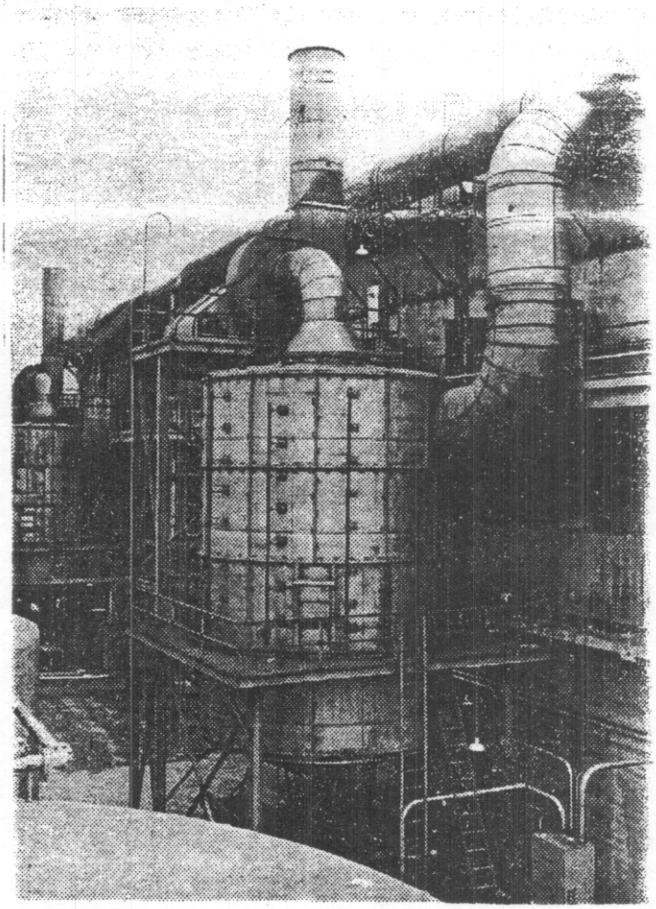
The technicians are hopeful that the measures being taken for the more difficult problem of controlling the exides of nitrogen will also attain desired efficiency.

They point out, however, that the yellow to orange color of the exide emissions will not be eliminated (though it will be considerably reduced in intensity) and therefore will continue to present an unsightly appearance. During times of temperature inversions this color will hover in the atmosphere over the plant area.

The control steps involve installations at the nitric acid recovery plants which are designed to provide more oxidation space, additional cooling and extend the retention time.

In addition to the sulphuric acid and oxides control, Col. Riedemann hopes the plant will soon have gas available to convert from coal in the boiler operations and thereby reduce the pollution from coal emissions.

"If those operations work as we hope they will," Capt. Higgins said, "we should be in good shape here. If they don't, then we will have to take additional measures."



EMISSIONS WITH FOG FILTERS IN OPERATION

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